



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/821,788

03/29/2001

Sinikka Sarkkinen

944-003.014-1

5501

4955

7590

10/07/2004

WARE FRESSOLA VAN DER SLUYS &
ADOLPHSON, LLP
BRADFORD GREEN BUILDING 5
755 MAIN STREET, P O BOX 224
MONROE, CT 06468

EXAMINER

WAHBA, ANDREW W

ART UNIT

PAPER NUMBER

2661

DATE MAILED: 10/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/821,788	Applicant(s) SARKKINEN ET AL.	
	Examiner Andrew W Wahba	Art Unit 2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-9 is/are allowed.
- 6) ☒ Claim(s) 1 and 10 is/are rejected.
- 7) ☒ Claim(s) 2-5 and 11-14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6/28/02, 7/18/01</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Widegren et al (US Patent 6,374,112) in view of the admitted prior art. With regard to claims 1 and 10, Widegren et al discloses an apparatus that maps different radio access bearers to different types of physical radio channels as illustrated in figure 7. Widegren et al distinguishes between UTRAN synchronized, speech, CBR, UBR, ABR and VBR data (column 13, lines 54-59). After distinguishing between different data type, segmentation is performed (permitting) by either segmentation/reassembly 240 or by segmentation/reassembly & ARQ 244 on UTRAN CBR, UBR, ABR and VBR data (column 14, lines 47-54). Segmentation, however, is not performed (blocking) on UTRAN synchronized and speech data (column 14, lines 15-20). In this manner, the data type acts as applicant's segmentation state indicator.

Widegren et al does not disclose the determining that a requested mode for an interface between CN and RAN is a transparent mode. The applicant, however, refers to modes of operation of the UP protocol (defined by 3G TS 24.415, section 4.2.1) as (1) Transparent Mode and (2) Support Mode (spec, page 2, lines 5-10). The determination of the requested mode for an interface, therefore, is admitted prior art.

A person of ordinary skill in the art, therefore, would have been motivated to employ the admitted prior art in Widegren et al to perform in both modes of operations, the Transparent Mode and Support Mode. At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine the admitted prior art with Widegren et al to obtain the invention as specified in claims 1 and 10.

Allowable Subject Matter

3. Claims 2-5, 11-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 6-9 and 15-18 are allowed. The following is an examiner's statement of reasons for allowance: With regard to claim 6, the prior art does not teach or fairly suggest storing plural SDUs at a radio link control segmentation/reassembly layer in said RAN, each SDU provided in a minimum interleaving period in a transparent mode and providing said one or more data transport blocks with a transport format indicator (TFI) for transmission over a radio interface from said RAN to a user equipment (UE) in a transmission time interval (TTI) having a duration greater than said minimum interleaving period.

With regard to claim 8, the prior art does not teach or fairly suggest storing plural SDUs at segmentation/reassembly layer in said UE, each SDU provided in a minimum interleaving period in a transparent mode and providing said one or more transport

blocks with a transport format indicator (TFI) for transmission over a radio interface from said UE to said RAN in a transmission time interval (TTI) having a duration greater than said minimum interleaving period.

With regard to claim 15, the prior art does not teach or fairly suggest means (234) for storing plural SDUs at a segmentation/reassembly layer in said RAN, each SDU provided in a minimum interleaving period in a transparent mode for retrieving said stored plural SDUs and means (238) for providing said one or more data transport blocks with a transport format indicator (TFI) for transmission over a radio interface from said RAN to a user equipment (UE) in a transmission time interval (TTI) having a duration greater than said minimum interleaving period.

With regard to claim 17, the prior art does not teach or fairly suggest means means (280) for storing plural SDUs at a segmentation/reassembly layer in said UE, each SDU provided in a minimum interleaving period in a transparent mode for retrieving said stored plural SDUs and means (310) for providing said one or more transport blocks with a transport format indicator (TFI) for transmission over said radio interface from said UE to said RAN in a transmission time interval (TTI) having a duration greater than said minimum interleaving period.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew W Wahba whose telephone number is (571) 272-3081. The examiner can normally be reached on M-F 8:30-5:30.

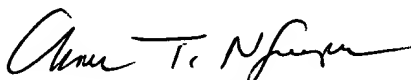
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth N Vanderpuye can be reached on (571) 272-3078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Andrew Wahba



September 29, 2004



CHAU NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600